ABSTRACT OF THE DISCLOSURE

The present invention relates to methods and apparatus for quantizing a bin value of a histogram. A method according to the present invention can include dividing a bin value into N+1 regions using N threshold values; and dividing and quantizing each respective one of the divided regions uniformly and with greater resolution to yield smaller divisions as a region is nearer to zero. For example, the bin value can be divided into six regions using five non-uniform threshold values (th1, th2, th3, th4 and th5), which can be set to 0.000000001, 0.037, 0.08, 0.195, and 0.32, respectively. A first region ($\leq$ th1) can be regarded as one value. The second region through the sixth region can be uniformly divided, for example into 25 levels 20 levels, 35 levels, 35 levels and 140 levels, respectively. Accordingly, the bin value can be represented with 256 values.